

## ABSTRACT OF THE DISCLOSURE

A supporting film is formed over an entire front surface of a base material, a heating resistor composed of a platinum film having a predetermined pattern is formed on the supporting film, and a protecting film is formed over an entire surface of the supporting film so as to cover the heating resistor. A heating structure having a diaphragm construction is constructed by forming a cavity under a region where the heating resistor is formed by removing a portion of the base material so as to extend to the supporting film from the rear surface side of the base material. The supporting film and the protecting film are each constituted by a silicon nitride film having an index of refraction of less than 2.25.